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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): DEM1P003

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on April 28, 2008

Signature: FILED VIA EFS

Typed or printed name: FILED VIA EFS

Application Number	Filed
09/741,956	December 20, 2000

First Named Inventor: Lee et al.

Art Unit	Examiner
3628	Robinson Boyce, Akiba K.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- ☒ attorney or agent of record. Registration number 37,491.
- ☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

/Kang S. Lim/
Signature

Kang S. Lim
Typed or printed name

925-570-8198
Telephone number

April 28, 2008
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT

In re application of: Lee et al.	Attorney Docket No.: DEM1P003
Application No.: 09/741,956	Examiner: Robinson Boyce, Akiba K.
Filed: December 20, 2000	Group: 3628
Title: ECONOMETRIC ENGINE	Confirmation No.: 7270

FILED VIA EFS

April 28, 2008

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop: AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sirs:

Appellants hereby request review of the decision of the primary examiner mailed December 28, 2007. The Pre-Appeal Panel is thanked for their review of the application.

Claims 1-4 and 6-11 are currently pending. The present application has been rejected under 35 U.S.C. 103(a) as being unpatentable over Ouimet et al. (US 6,078,893), in view of Garg (US 6,044,357), and further in view of Chavez (US 6,684,193).

Additionally, Claims 1-4 and 6-11 have been rejected under 35 U.S.C. 112.

Appellants respectfully request a pre-appeal brief review of the present application in light of the arguments raised herein. For the sake of brevity, Appellants respectfully direct the review panel to, and incorporates by reference, Appellants' October 17, 2007 response, for a complete listing of claims, as well as additional arguments for allowability that were unable to be included in this Pre-Appeal Brief for lack of adequate space.

Regarding the rejection under 35 USC 112, Appellants assert that the purported error in antecedent basis requires the deletion of the term "internal" to be rectified. Appellants would be willing to make such an amendment, if required, to expedite the prosecution of the application.

Regarding the Examiner's rejection of Claims 1-4 and 6-11 under 35 U.S.C. 103(a), Appellants assert that Ouimet et al., Garg and Chavez do not disclose all of the claim limitations of claims 1 or 3. Appellants believe that the present invention is nonobvious over Ouimet et al., Garg and Chavez because the cited references neither teach nor suggest each and every element of claim 1 or 3.

"A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *Graham v. John Deere Co.,* 383 U.S. 1, 13 (1966). Further, "[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981 (C.C.P.A. 1974); MPEP 2143.03.

Appellants believe that none of Ouimet, Chavez or Garg discloses a 'demand group' as recited in claim 1 and 3. In particular, Appellants believe that Ouimet, Chavez and Garg do not teach or suggest "[creating] … a demand group sales model as a function of price wherein said demand group sales model models sales for each demand group" as claimed in Claims 1 and 3. (Emphasis added).

Contrary, Ouimet discloses "a system of coupled equations that describe the demand for each item . . ." (Emphasis Added). (See Column 5, lines 60 to 63). Ouimet discloses the possible use of a "demand model in which there is nonlinear cross-correlation between the variables of different items;" however, here demand models are still generated for *each item*. (See column 6, lines 12-16). There appears to be no suggestion in Ouimet of determining a demand model for the entire 'group'.

Regarding Chavez, there is no teaching or suggestion in the reference of a demand group as taught in claim 1 and 3 of the instant invention. Nor is there any suggestion by the Examiner as to any disclosure in Chavez regarding a demand group.

Additionally, Appellants believe that Garg '357 does not teach or suggest "wherein each demand group is a group of highly substitutable products" as claimed in Claims 1 and 3. Contrary, Garg discloses "marketing mix variables, each of said variables representing marketing strategies for each of a plurality of brands of goods" (See Column 14, lines 45-47). Additionally, Garg discloses "then selecting another sub-plurality of marketing mix variables, representing another marketing strategy, and calculates another estimated total profit/loss value." (See Column 3, lines 39-41). It appears that Garg discloses an iterative process of selecting groupings of brands and determining profits. At the end of the iterative process, the grouping of brands with the highest profits is identified. Garg discloses grouping of brands, not individual products.

Moreover, these groupings, as disclosed in Garg, are only limited by "feasible marketing strategies." (see Column 3, lines 12-13). Thus, the selection of variables by Garg does not teach or suggest selecting "demand groups" of "substitutable products." (Emphasis added).

Additionally, Appellants believe that none of Ouimet, Chavez or Garg disclose a 'demand group sales model' as recited in claim 1.

As discussed above, Appellants believe that Ouimet discloses "a system of coupled equations that describe the demand for each item . . ." (See Column 5, lines 60 to 63). Garg discloses "marketing mix variables, each of said variables representing marketing strategies for each of a plurality of brands of goods" (See Column 14, lines 45-47). As such, Garg discloses grouping of brands, not individual products. Chavez et al. discloses "nonlinear, cross-correlation between the variables of different items." (See Column 6, lines 12-15). Thus, Chavez et al., while taking into account product demand elasticity, does not disclose generating a demand model for a demand group. Chavez et al. does not even appear to disclose product grouping of any sort, let alone by highly substitutable products as a demand group.

Hence, even if one were to combine Ouimet with Garg or Chavez, this combination does not teach or suggest "[creating] . . . demand groups, wherein each demand group is a user defined group of highly substitutable products" and "[creating] . . . a demand group sales model as a function of price wherein said demand group sales model models sales for each demand group . . ." in the manner claimed in Claims 1 and 3. The benefit of generating demand for demand groups over each product individually, is that there is a significantly reduced

requirement of processing resources. Additionally, demand group modeling may provide valuable information about demand groupings that none of the prior art is able to provide.

Appellants also assert that there is insufficient evidence of record of a motivation to combine Ouimet et al., Garg and Chavez in a manner meeting the invention as recited in claim 1 or 3.

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007). In *KSR*, the Supreme Court emphasized that "the principles laid down in *Graham* reaffirmed the 'functional approach' of *Hotchkiss*, 11 How. 248." *KSR,* 127 S.Ct. at 1739, 82 USPQ2d at 1395 (citing *Graham*, 383 U.S. at 12, 148 USPQ at 464). The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at 1740, 82 USPQ2d at 1396. The Court noted that "[t]o facilitate review, this analysis should be made explicit." *Id.*, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be **some articulated reasoning** with some rational underpinning to support the legal conclusion of obviousness") (emphasis added).

None of the cited art disclose all of the limitations of claims 1 or 3. Furthermore, even if one were to construe the disclosures of the cited art to disclose said limitations, there is no disclosure of a motivation to combine in a manner which gives the functionality of the instant invention. None of the sales models disclosed in the cited art functions in such a way as to combine a group sales model and an individual product market share model in order to produce an overall product sales model. As such, any asserted combination fails to meet the 'functionality test' outlined in *KSR, supra.*

Regarding Claims 6 and 10, Appellants believe that none of Ouimet, Garg or Chavez et al. teach or suggest even the existence of an "equivalizing factor" in the manner of Claims 6 and 10.

The Examiner's cited reference of Ouimet's disclosure for this rejection: "the user selects a figure-of-merit function, which is a function that attains a minimum value when the parameters of a model are adjusted to match as closely as possible to known data." (See Column 4, line 66-Col. 5, line 6). A figure-of-merit function is unsuitable to be used to equivalate volumes, or sizes, of products to one another. The cited art appears to have nothing to do with equivalizing factor or demand groups as disclosed in the present invention. Instead the cited art appears to only be concerned with tuning demand models to "sales history." (See Column 5, line 5).

The instant invention determines an equivalizing factor to facilitate comparisons between different size products in a demand group. As a result, a demand group sales model for all of the products in a demand group may be created and used in conjunction with a market share model which gives the fraction of sales of each product in the demand group to create a product sales model by combining said demand group sales model and said market share model. None of the cited art teach nor suggest an equivalizing factor as recited in claims 6 and 10.

In sum, Appellants believe that all pending Claims 1-4 and 6-11 are allowable over the cited art and are also in allowable form and respectfully request a Notice of Allowance for this application from the Pre-Appeal Panel. The commissioner has been authorized to charge the fees that are due in this filing to our credit card. The commissioner is authorized to charge any additional fees to our Deposit Account No. 50-2766 (Order No. DEM1P003). Should the Pre-Appeal Panel believe that a telephone conference would expedite the prosecution of this application; the undersigned can be reached at telephone number 925-570-8198.

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Respectfully submitted,

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